

The corundum is the pure material, and is not emery. The masses are made up of a close aggregation of crystals with the intervals occupied with margarite. Some of the fissures and surfaces of the masses display large and beautiful crystalline plates of margarite, and occasionally unusually fine crystals of diaspore. Some of the crystals of corundum appear to have undergone partial metamorphosis into margarite. The corundum is bluish-gray, of very compact texture, and does not cleave so readily as the North Carolina mineral.

The various specimens of corundum and other minerals found in association with it, presented to the Academy this evening by Mr. Ball, were obtained at the locality described.

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OCTOBER 8.

The President, Dr. RUSCHENBERGER, in the chair.

Seventeen members present.

Mr. THOMAS MEEHAN remarked, that as botanists well knew, *Quercus prinoides* seldom grew more than two feet in height. It was one of the smallest of shrubs. In his collections in Kansas, he found oaks in the vicinity of Leavenworth, which made small trees from ten to fifteen feet high, and with stems from one to two feet in circumference. He was entirely satisfied that it is identical in every respect but size with the *Q. prinoides* of the eastern States.

Among trees there are few which produce forms as low shrubs; but the *Pinus Banksiana*, in the East but a bush of five or ten feet, grew often forty feet along the shores of Lake Superior; the *Castanea pumila*, Chinquapin chestnut, when it gets out of the sands of New Jersey into the clayey soils west of the Delaware, often grew as large as many full grown apple trees; while the *Celtis occidentalis*, which in the East is generally but a straggling bush along fence corners, is in Ohio a large spreading tree with enormous trunk, and in Indiana is as lofty and as graceful as an elm.

He also exhibited a section of a stem of *Wistaria sinensis*, and called the attention of members to a curious arrangement of the wood and bark. The vertical section showed by the annual rings of wood that it was about twelve years old. After the eighth year's circle there was a layer of bark, and over this layer two more circles of wood. On a portion of the section another layer of bark had formed between the tenth and eleventh years' circles of wood. The bark seemed to be wholly of liber, the cellular matter and external cortical-layer of the regular bark appeared to be wanting. A longitudinal section showed where these internal layers of bark extended no further upwards, and at this point there

was an evident flow of wood from the interior over and down this layer of inclosed bark.

He remarked that this section of wood was taken from a stem which had been led to support itself in an upright position. When the *Wistaria* is permitted to trail along the ground numerous rootlets are formed along its length. He thought from the appearance of the wood, in the specimen presented, that rootlets had partially formed in these erect stems, pushing through the liber, and then instead of penetrating entirely through the bark, and forming perfect rootlets, they remained within the cellular matter, and descending joined with the regular woody layer in forming an annular course of wood. This explanation was the more plausible, he thought, from the fact that woody stems formed on the ground. Where the rootlets went quite through into the earth, the stems were nearly regularly cylindrical; but these upright stems on which rootlets were never seen had an irregular fluted appearance; of course, this explanation does not accord with the formation of wood in ligneous structures as generally understood; but he could not understand how the appearance presented could have occurred in any other way, than as he had supposed.

Attention was called to a twin apple, on the table, with two stems and stem cavities, and two calyx basins a little below which, however, an union had taken place. Mr. Meehan said these phenomena were rather common with various fruits and the mode of production well understood. It was simply the inarching of two fruits at a very early stage of their existence, through two embryonic blossoms having perhaps been produced in juxtaposition from one bud.

Dr. JOSEPH CARSON said that he thought the variety exhibited, the winesap, had a tendency to pair young buds and thus bring forth these united twin fruit. He had once known a tree of them which produced a large proportion of the fruit of this character. He had seen perhaps a peck of them which had been gathered at one time from the tree.

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OCTOBER 15.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-one members present.

*Remarks on Fossil Mammals from Wyoming.*—Prof. LEIDY directed attention to the collection of fossils, from the vicinity of Fort Bridger, Wyoming, presented this evening by Dr. J. Van A. Carter, Dr. Joseph K. Corson, U. S. A., and himself. Among them are the more characteristic remains noticed in a letter sent by him to the Academy last July, published August 1st, and subsequently in the Proceedings, page 167. Some of the fossils were